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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,954	01/05/2000	JONATHAN LEE SULLIVAN		9970

7590

04/23/2002

DENNIS L THOMTE  
801 GRAND AVENUE  
SUITE 3200  
DES MOINES, IA 50309

EXAMINER

HARRY, ANDREW T

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 04/23/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/477,954

Applicant(s)

SULLIVAN, JONATHAN LEE

Examiner

Andrew T Harry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *1. Claim Cancellation*

Claims 1 and 2 have been cancelled by the Applicant and are thereby withdrawn from consideration. Therefore claims 3 – 14 are still pending in the application.

### *2. Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7 and 13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 7 and 13 both include the limitation that "... said internal and external antennas are electrically disconnected from one another at all times." However, in the specification submitted by the applicant states that "When the external retractable antenna is retracted, it is disconnected from the antenna feed circuitry and the internal antenna is connected. The internal antenna 20 functions as the primary antenna while retractable antenna functions as a secondary antenna." This could be read to infer that the retractable antenna provides signal-strengthening support to the internal antenna even when retracted by being electrically connected to the internal antenna. Furthermore claim 10 states that, "... an external, retractable antenna movably mounted

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on said internal antenna and being movable between a retracted position and an extended position ..." which further indicates that the external antenna is connected to the internal antenna. Therefore claims 7 and 13 are rejected as they introduce new matter that is not clearly disclosed in the specification.

### *3. Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, 10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Matai U.S. Patent 6,064,863** (Matai).

Regarding claim 5, Matai discloses a wireless communication device, comprising: a housing (see Matai col. 2 lines 28 – 30); a radio circuit disposed within said housing (see Matai col. 2 lines 35 – 37); an internal antenna disposed within said housing (see Matai col. 2 lines 44 – 46); an external, retractable antenna movably mounted on said internal antenna and being movable between a retracted position and an extended position with respect thereto (see Matai col. 2 lines 23 – 34); said internal antenna being in circuit with said radio circuit when said external antenna is in its said retracted position (see Matai col. 2 lines 44 – 54); said internal antenna being out of circuit with said radio circuit when said external antenna is in its said extended position (see Matai col. 2 lines 55 – 65); said external antenna being in circuit with said radio circuit when in its said extended position (see Matai col. 2 lines 55 – 65); said external

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antenna being out of circuit with said radio circuit when in its said retracted position (see Matai col. 2 lines 44 – 54). Instead of specifying a transceiver circuit, Matai simply uses the term “radio circuit” in his disclosure. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to know that Matai’s radio circuit would have performed the same tasks as a transceiver circuit, and that Matai’s use of the phrase “radio circuit” is analogous with the applicant’s phrase “transceiver circuit.” This analogy can be made because both Matai’s disclosure and the Applicant’s disclosure are wireless communications devices that require a transceiver to operate. Additionally, both disclosures only contain one printed circuit board, and Matai’s disclosure states that only a switch circuit and a radio circuit are included in the housing (see Matai col. 4 lines 31 – 34) meaning that the transceiver circuitry must be part of the “radio circuit”.

As pertaining to claim 6, Matai as modified in claim 5 above discloses a switching mechanism that selectively connects either said external antenna or said internal antenna to said transceiver circuit (see Matai col. 2 lines 35 – 43 and col. 4 lines 31 – 34).

Regarding claim 10, Matai discloses a wireless device comprising: a housing including a front housing member and a back housing member; said front and back housing members having upper and lower ends. Figures 2A and 2B show that Matai’s device obviously have front and back portions and Figure 3 clearly shows that the device also has an upper and lower end. Matai’s device also has a printed circuit board positioned in said housing adjacent said front housing member which functions as a radio circuit (see Matai fig. 2A and 2B and col. 2 lines 39 – 43); an internal antenna positioned in said housing adjacent said upper end of said back housing member (see Matai fig. 2A, 2B and 3 and col. 2 lines 34 – 37); an external retractable antenna movably

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mounted on said internal antenna and being movable between a retracted position and an extended position with respect thereto (see Matai fig. 2A and col. 2 lines 25 – 34). Matai shows in fig 2A that the external antenna (121 – 125) is mounted to the internal antenna element (111-114), and that the external antenna element is moveable. Matai also discloses that said internal antenna is in circuit with said radio circuit when said external antenna is in its said retracted position (see Matai col. 2 lines 44 – 54); said internal antenna out of circuit with said radio circuit when said external antenna is in its said extended position (see Matai col. 2 lines 55 – 65); said external antenna being in circuit with said radio circuit when in its said extended position (see Matai col. 2 lines 55 – 65); said external antenna being out of circuit with said radio circuit when in its said retracted position (see Matai col. 2 lines 44 – 54). ). Instead of specifying a transceiver circuit in his disclosure, Matai simply uses the term “radio circuit”. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to know that Matai’s radio circuit would have performed the same tasks as a transceiver circuit, and that Matai’s use of the phrase “radio circuit” is analogous with the applicant’s phrase “transceiver circuit.” This analogy can be made because both Matai’s disclosure and the Applicant’s disclosure are wireless communications devices that require a transceiver to operate. Additionally, both disclosures only contain one printed circuit board, and Matai’s disclosure states that only a switch circuit and a radio circuit are included in the housing (see Matai col. 4 lines 31 – 34) meaning that the transceiver circuitry must be part of the “radio circuit”.

As pertaining to claim 12, Matai as modified in claim 10 above discloses a switching mechanism that selectively connects either said external antenna or said internal antenna to said transceiver circuit (see Matai col. 2 lines 35 – 43 and col. 4 lines 31 – 34).

Claims 3, 4, 8 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Matai as applied to claim 5 above, and further in view of **Chang U.S. Patent 6,171,123** (Chang).

As pertaining to claims 3 and 8, Matai as modified in claim 5 above does not mention anything about a remote RF port in the disclosure of his wireless device. Chang does teach an electrical connector or RF port that is provided in the wireless device's housing and is mechanically connected to an internal antenna within the device (see Chang col. 2 lines 45 – 54). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to add to Matai's disclosure Chang's RF port so that another antenna may be connected to Matai's radio device to increase its received signal strength or to possibly utilize the port as an output port for another device that may be connected Matai's mobile communications device.

Regarding claim 4, Matai as modified above in claims 5 and 6 does not mention anything about a remote RF port in the disclosure of his wireless device. Chang does teach an electrical connector or RF port that is provided in the wireless device's housing and is mechanically connected to an internal antenna within the device (see Chang col. 2 lines 45 – 54). It would have been obvious to one of ordinary skill in the art at the time of the Applicant's disclosure to add to Matai's disclosure Chang's RF port so that another antenna may be connected to Matai's radio device to increase its received signal strength or to possibly utilize the port as an output port for another device that may be connected Matai's mobile communications device.

Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matai as applied to claim 10 above, and further in view of Chang.

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Regarding claims 11 and 14, Matai as modified in claim 10 above does not mention anything about a remote RF port in the disclosure of his wireless device. Chang does teach an internal antenna having front and back sides and wherein said back side of said internal antenna has a an electrical connector or RF port formed in its back side; said back housing member having an opening formed therein which communicates with said remote RF port (see Chang abstract and fig. 3 and col. 2 lines 45 – 54). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to add to Matai's disclosure Chang's RF port so that another antenna may be connected to Matai's radio device to increase its received signal strength or to possibly utilize the port as an output port for another device that may be connected Matai's mobile communications device.

#### ***4. Response to Arguments***

Applicant's arguments filed March 15, 2002 have been fully considered but they are moot in view of the new grounds of rejection.

#### ***5. Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period



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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Harry whose telephone number is 703-305-4749. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter can be reached on 703-308-6732. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

ATH  
April 22, 2002

  
DANIEL HUNTER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600